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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/823,645 | 03/30/2001 | Edmund G. Lee | 261/180 | 8563 |
| 20350 | 7590 | 08/08/2005 | EXAMINER | |
| TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834 | | | AMSBURY, WAYNE P | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2161 | |

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/823,645

Applicant(s)

LEE, EDMUND G.

Examiner

Wayne Amsbury

Art Unit

2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2001 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

CLAIMS 1-25 ARE PENDING

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

These claims are directed to abstract and conceptual methods, as distinct for example, from computer-implemented methods.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Horvitz et al (Horvitz), US 6,021,403, February 1, 2000.

As to **claim 1**:

A method of identifying relationships between influencers and outcomes under a particular set of conditions

Horvitz is directed to automated reasoning to optimize systems by inference about a user's needs and preferences.

Horvitz teaches and is an improvement upon prior art that was well known at the time (19 July 1996) to apply logical rules and heuristics that cause a rule to fire based on conditions [COL 2 lines 17-37], and to the use of probabilistic models that determine relationships between words in a query that correspond to influencers, and outcomes [COL 2 lines 38-48]. The system of Horvitz computes probabilities that correspond to relationships between alternative user's intentions, goals, or informational needs and outcomes in the form of assistance, as determined with modeled events [COL 3 lines 24-37]. In more particular, the inference is done within decision theory, which determines relationships about actions, outcomes following actions, and the value of outcomes [COL 19 line 66 to COL 20 line 14]. In this general context, inputs to the system (such as query terms), observables, and evidence correspond to influencers.

building a model of information that characterizes relationships under many different conditions between influencers and outcomes

The influence diagrams for user modeling correspond to such a model [COL 20 lines 15-18; FIG 14].

inputting a query that specifies a set of conditions

The words in a query specify informational needs that specify a set of conditions [FIG 14 176, 174].

determining a relationship between the set of conditions specified in the query and a particular outcome that is represented in the model

The result of the process depicted in FIG 14 that establishes a relationship determines a plurality of particular actions that the model determines [COL 20 lines 32-41].

identifying, based on the model, at least one potential influencer of the particular outcome

Horvitz determines the user needs [FIG 14 174], which in turn determine actions [COL 20 lines 46-51], and in fact seeks to optimize the outcomes [COL 20 lines 52-64].

As to **claims 2-4**, the determination of an optimum action based on needs corresponds to determining significant impacts [claim 2], expected impact [claim 3], and to analyzing the impact of influencers [claim 4].

As to **claim 5**, the informational needs [FIG 14 174] correspond to a modified query. Horvitz also tracks and analyzes changing relationships over time [COL 21 lines 9-25] that result in a display of possible influences [FIG 15] that correspond to a modified query [COL 21 lines 26-40].

As to **claim 6**, the free-text query of Horvitz corresponds to a natural language query [COL 6 lines 14-18], and this is made explicit at COL 13 lines 35-47 and FIG 19.

As to **claim 7**, the model is built based on computerized data analysis as noted repeatedly above, and also provides for expert input [COL 22 lines 65-67; FIG 17 202].

As to **claim 8**, the informational needs of FIG 14 174 may correspond to influencers unaccounted for by a particular query.

In more detail, the inference system may determine hidden hypotheses [COL 18 lines 56-58], may use general knowledge about a user to determine hypotheses [COL 20 lines 46-51], apply past behavior to determine influencers [Col 21 lines 9-67], and other aspects of intelligent assistance [COL 22 line 55 and after].

It is considered that the use of natural language to derive a query corresponds to determining influencers unaccounted for by the query in any explicit sense.

As to claim 12, the user may set a threshold [Col 6 lines 27-34].

As to the use of nodes in **claims 17-25**, the Bayesian networks that may be an embodiment of Horvitz are formulated as nodes [COL 7 line 48 and after].

The elements of **claims 9-25** are rejected in the analysis above and these claims are rejected on that basis.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne Amsbury whose telephone number is 571-272-4015. The examiner can normally be reached on M-F 6-18:30 FIRST WEEK.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 571-272-4023. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2161

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WPA



WAYNE AMSBURY
PRIMARY PATENT EXAMINER